Falcon Refinery Superfund Site
Ingleside
San Patricio County, Texas
TXD 086 278 058

Monthly Progress Report # 65

September 2011

Prepared for

National Oil and Recovery Corporation
3717 Bowne Street
Flushing, NY 11354

Prepared by

505 East Huntland Drive
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Austin, Texas 78752

October 7, 2011

643973

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1.0 INTRODUCTION

This sixty-fifth Monthly Progress Report is submitted in accordance with the Falcon Refinery Site Administrative Orders on Consent for Removal Action and Remedial Investigation / Feasibility Study between the U.S. Environmental Protection Agency (U.S. EPA) and National Oil Recovery Corporation (NORCO).

This Monthly Progress Report and subsequent reports will address activities associated with both of the orders.

The next monthly progress report, covering October, 2011 will be submitted on or before November 10, 2011.

2.0 COMPLETED ACTIVITIES

2.1 Removal Action Activities

During September rainwater, that had entered the tanks through holes in the roofs of the tanks and came in contact with sludge in the bottoms of the tanks in Tanks 10 and 30 (Figure 1), continued to be transferred into Tank 26. By moving the liquid to Tank 26 the remaining tanks that contained waste can be cleaned using the approved addendum to the Removal Action Work Plan. Estimates indicate that after the transfer there are 1.3 million gallons of rainwater in Tank 26.

Results of the sludge characterization (Appendix 1) following the transfer of rainwater from the tanks indicated that the sludge required thermal recycling or destruction. To minimize the amount of sludge vacuum trucks have been used to remove as much water waste as possible from the sludge.

A permit to discharge the rainwater via irrigation from Tank 26 to the vacant field on the southwestern portion of the refinery property was submitted to the TCEQ during August 2011. The TCEQ requested additional information and disagreed with the provide characterization of the depth to groundwater. Despite the use of actual depth to groundwater data, obtained during Phase I of the RI/FS Field Sampling Plan, the TCEQ chose to rely upon generalized depth to groundwater data form Soil Conservation maps. To further prove the depth to groundwater five borings were drilled and similar to the data provided in the Land Discharge Application the depth to groundwater ranged from 7.2 feet to 11.1 feet below ground surface (Figure 2). Using old maps the TCEQ had concluded that groundwater was from 0.0 to 0.5 feet.

Results of the additional sampling will be provided to the TCEQ during the first week of October. Prior to any discharge of rainwater the water will be passed through activated carbon, placed into a tank and sampled to ensure that no contaminants are discharged.

During September Tanks 2, X-1, X-2 and X-3 were cleaned and removed from the site. The contents of Tanks 17 through 24 were characterized and Tank 18 was cleaned and removed. During October Tanks 17 and 19 through 24 will be cleaned and removed. To facilitate the removal of Tanks 17 through 24 a small building on the property was relocated.

Cleanout of Tank 27 is nearly complete and the cleanout will be completed during October.

During the month representatives of the General Land Office visited the site to inspect the tanks.

To date a total of approximately 7,774,721 gallons of hazardous waste have been removed from all of the above ground tanks and disposed via deep well injection at Texas Molecular.

Prior to the beginning of liquid waste disposal in October 2004, the volume of waste in the above ground storage tanks was measured at 6,844,094 gallons. Apparently due to holes in the tops of the tanks the volume of waste has increased due to rainfall, since more waste has been disposed of than was originally measured.

A compilation of hazardous liquid waste disposal is included as Table 1.

2.2 Remedial Investigation / Feasibility Study (RI/FS)

During September 2011 the EPA provided NORCO an Agreed Order for Resumption of Remedial Investigation and Feasibility Study at the Falcon Refinery Superfund Site, Ingleside, San Patricio County, Texas.

Access agreements have been sent out to adjacent land owners and land owners of background sampling locations. Additionally meetings were held with representatives of San Patricio Count and the City of Ingleside to obtain access on municipal and county right-of-ways.

3.0 CHANGES MADE IN THE PLANS DURING THE REPORTING PERIOD

An updated project schedule was provided to the EPA during September. Also updated Human Health and Ecological Screening Levels were submitted. The screening level tables also included updated

4.0 COMMUNITY RELATIONS

The EPA has developed a web site to display information about the Removal Action and RI/FS activities. Information can be found by going to www.epaosc.net and selecting web sites, then Region 6 and then the Falcon Refinery Site.

5.0 CHANGES IN PERSONNEL DURING THE REPORTING PERIOD

None during September.

6.0 LIST OF PROJECTED WORK FOR THE NEXT TWO MONTHS

6.1 Removal Action Work projected for the next two months includes:

- Implement Removal Action Work Plan Addendum No.3;
- Dispose sludge at US Ecology and clean out 17, 19 through 24, 10 and 30;

- Removal of Tanks 17, 19 through 24; and
- Continued site maintenance.

6.2 RI/FS Work projected for the next two months includes:

- Implementing the Phase II Field Sampling Plan, including:

- Obtaining access agreements from land owners for offsite sampling locations; and
- Contracting for drilling and analytical testing.

7.0 LABORATORY / MONITORING DATA

None during September.

FIGURES

N

0 200 400
Feet

Source: National Agriculture Imagery Program (NAIP) 2009 Aerial Photography.

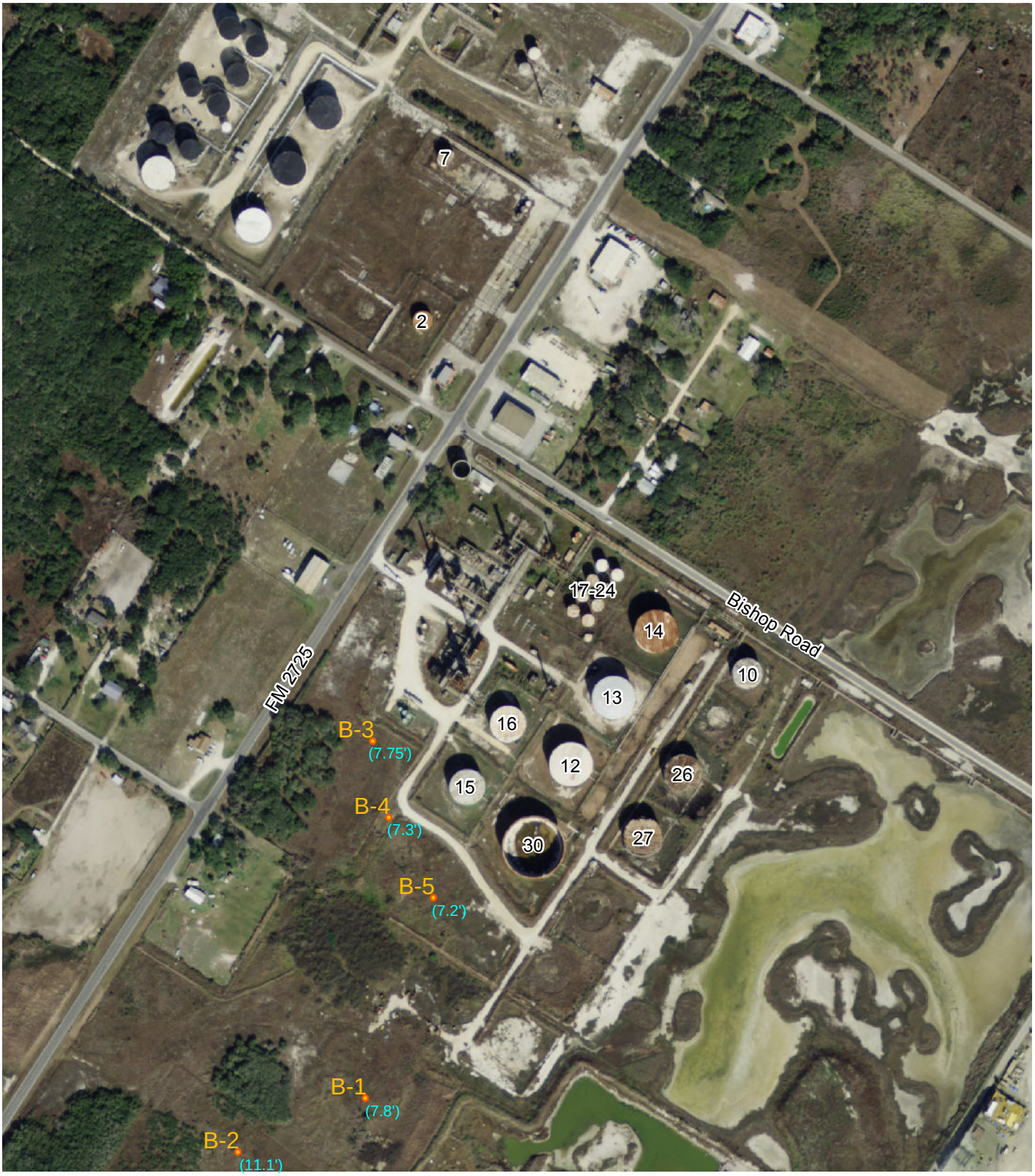
ABOVE GROUND STORAGE TANK MAP

FALCON REFINERY
INGELSIDE, SAN PATRICIO COUNTY, TEXAS

PROJECT NO.: 182978 | DATE: 4/29/2011

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
512-329-6080

FIGURE
1



LEGEND

- PROPOSED IRRIGATION FIELD
- (7.2') HAND AUGER BORING LOCATIONS (Depth to Groundwater Measurement in feet below ground surface).

Source: National Agriculture Imagery Program (NAIP) 2009 Aerial Photography.

N

0 200 400

Feet

SITE MAP

HAND AUGER BORING LOCATIONS

FALCON REFINERY
INGELSIDE, SAN PATRICIO COUNTY, TEXAS

PROJECT NO.: 182978 | DATE: 09/30/2011

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
512-329-6080

FIGURE 2

TABLES

Table 1. Hazardous Liquid Waste Disposal

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
Texas Molecular Corpus Christi Services, LP	6901 Greenwood Dr. Corpus Christi, TX	361-852-8284	TXR000001016	Robert Rodriguez
RQ, HAZARDOUS WASTE LIQUID N.O.S., 9 , UN3082, III (D007, D008, D018)				
	Month	Volume (gal)		
	October-04	53,832		
	November-04	734,763		
	December-04	879,158		
	January-05	783,881		
	February-05	551,444		
	March-05	565,489		
	April-05	445,107		
	May-05	471,311		
	December-05	42,550		
	January-06	58,740		
	February-06	59,140		
	March-06	0		
	April-06	29,371		
	May-06	59,018		
	June-06	97,151		
	July-06	118,743		
	August-06	148,509		
	September-06	109,908		
	October-06	86,665		
	November-06	140,498		
	December-06	85,813		
	January-07	118,541		
	February-07	107,985		
	March-07	152,493		
	April-07	121,588		
	May-07	150,368		
	June-07	87,900		
	July-07	143,485		
	August-07	94,727		
	September-07	0		
	October-07	50,298		
	November-07	151,227		
	December-07	112,285		
	January-08	119,353		
	February-08	88,777		
	March-08	60,913		
	April-08	18,695		
	May-08	25,349		
	June-08	0		
	July-08	250,475		

		August-08	331,248		
		September-08	67,923		
		October-08	0		
		November-08	0		
		December-08	0		
		January-09	0		
		February-09	0		
		March-09	0		
		April-09	0		
		May-09	0		
		June-09	0		
		July-09	0		
		Total	**7,774,721**		

Table 2. Metal Disposal

DISPOSAL FACILITY	**ADDRESS**	**PHONE NO.**	**EPA ID NO.**	**CONTACT**
Commercial Metal Company	**4614 Agnes St Corpus Christi, TX**	**361-884-4071**	**None**	**David**
	RECYCLED METAL			
	Month	**Volume (lbs)**		
	October-04	0		
	November-04	16,820		
	December-04	19,640		
	January-05	31,380		
	February-05	0		
	Total	**67,840**		
	FIRE EXTINGUISHERS			
	Month	**Quantity**		
	December-04	10		
	Total	**10**		
	Industrial Fire & Safety Co. removed 10 fire extinguishers from the job site. The powder was disposed of properly and the metal went to salvage.			

Table 3. Contaminated Soil and Oily Debris Disposal

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
U.S. Ecology Texas L.P.	P.O. Box 307 Robstown, TX	361-387-3518	TXD069452340	Glenda Felkner
PETROLEUM CONTAMINATED SOIL AND OILY DEBRIS				
	Month	**Volume (cy)**		
	October-04	0		
	November-04	0		
	December-04	40		
	January-05	0		
	February-05	0		
	Total	**40**		
RQ, HAZARDOUS WASTE SOLID, N.O.S., LEAD, 9 NA3077, PGIII (OILY SLUDGE AND SOIL)				
	Month	**Volume (cy)**		
	February-05	15		
	Total	**15**		

Table 4. Oil and Filter Disposal

DISPOSAL FACILITY	ADDRESS	PHONE NO.	EPA ID NO.	CONTACT
Texas Molecular Corpus Christi Services, LP	6901 Greenwood Dr Corpus Christi, TX	361-852-8284	TXR000001016	Robert Rodriguez
RECYLCED OIL AND FILTERS				
	Month	**Volume (gal)**		
	January-05	403		
	February-05	0		
	Total	**403**		
DISPOSAL FACILITY	**ADDRESS**	**PHONE NO.**	**EPA ID NO.**	**CONTACT**
Midstate Environmental Services, LLC	2203 Tower Road Robstown, TX	361-387-2171	TXR000051227	Lloyd Cooke
RECYLCED OIL AND FILTERS				
	Month	**Volume (gal)**		
	January-05	16,651		
	February-05	0		
	Total	**16,651**		

APPENDIX 1

US Ecology Waste Characterization

USEcology

☐ US Ecology Nevada (Beatty) Fax (775) 553-2125
☐ US Ecology Idaho (Grand View) Fax (208) 834-2919
☑ US Ecology Texas (Robstown) Fax (361) 387-0794
Profile #:

A. CUSTOMER INFORMATION

*Waste as shipped will be : ☑ Industrial ☐ NON - Industrial *(Texas customers only)*

Generator: NATIONAL OIL RECOVERY CORP.
Facility Address : (No PO Box) 1472 FM 2725, INGLESIDE, TX 78362
Mailing Address: c/o: TRC Solutions
City/State/Zip: 505 E. Huntland Drive, Suite 250, Austin, Tx 78752
Technical Contact: Stephen Halasz
Phone: 512-684-3103 Fax: 512-329-8750

☐ Check if Billing is Same
Billing Company: GAINCO, INC.
Billing Address: PO BOX 309
City/State/Zip: PORTLAND, TX 78374
Billing Contact: THERESA NIX
Phone No.: (361)643-4378 Fax No.: (361)777-0971
Email: TNIX@GAINCO.US

NAICS# ____ ☐ CESQG ☐ SQG ☐ LQG EPA ID# TXD086278058 State ID# 31288

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE SOLID, N.O.S. 2. Hazard Class: 9
3. UN/NA #: NA3077 4. Packaging Group: III 5. RQ: 1 lb
6. Container Type: ☑ Bulk ☐ Totes ☐ Pallet Size: TONS 7. Frequency: ☐ Year ☐ QTR ☐ Month
☐ Boxes ☐ Bags ☐ Drums ☐ Other ____ Quantity: 700 ☐ 1 Time ☑ Other AS NEEDED

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common name for this waste: CRUDE OIL TANK BOTTOMS
2. Process generating the material: CLEANOUT AND REMOVAL OF SOLIDS
3. Describe physical appearance of waste: BROWN TO BLACK SOLID/SLUDGE WITH POTENTIAL FOR SOME FREE LIQUIDS
4. Describe odor of waste: ☐ None ☑ Slight ☐ Strong Describe: OILY / HYDROCARBONS
5. Knowledge is from: ☑ Lab Analysis ☐ MSDS ☑ Process/Generator knowledge ☑ Yes ☐ No Is the waste restricted under EPA Land Disposal Restrictions (40 CFR 268) *If yes, please complete LDR form*
☐ Yes ☑ No Is the material <500 PPMW VOC as generated?
☑ Yes ☐ No Is the waste, or generating facility, subject to regulation under 40 CFR Part 61 Subpart FF (Benzene Rule) of NESHAPS? If yes, complete form "*attachment 4*". (Note: Waste generated from chemical manufacturing, coke-by-product recovery plants, petroleum refineries or treaters of such waste are subject to these requirements.)
☐ Wastewater ☑ Non-wastewater ☐ Debris
☑ Yes ☐ No State waste codes: FQQP603H
☐ Yes ☑ No Alternative standards for Soil ?
☐ Yes ☑ No CERCLA Regulated (Superfund) Waste
☑ Yes ☐ No **EPA Haz. Waste (list codes)**: K169
☐ Yes ☑ No Contains UHCs/Constituents of Concern: List in section D
☐ Yes ☑ No Has the waste been treated after the initial point of generation?
☐ Yes ☑ No Subpart XX (40 CFR 63.1080) *Controls Required?*
☐ Yes ☑ No Exempt Waste: If yes, list ref. 40 CFR
Source Code **G**: G14 Form Code **W**: W603 Mgt. Method **H**: H050

D. MATERIAL COMPOSITION (Physical/Chemical)

(Range Total > or = 100%) Values are ☐ TCLP ☑ TOTALS
(include additional sheets as necessary)

	typical value	unit	range
CRUDE OIL TANK BOTTOMS	90	%	90-100
WATER	10	%	0-10
BARIUM	105	MG/KG	
CHROMIUM	5.1	MG/KG	
LEAD	35.9	MG/KG	
MERCURY	2.06	MG/KG	
BENZENE	10	MG/KG	0-20
ETHYLBENZENE	20	MG/KG	0-70
XYLENES	35	MG/KG	0-220
TOLUENE	20	MG/KG	0-137
BENZO(A)ANTHRACENE	5	MG/KG	0-16
BENZO(G,H,I)PERYLENE	2	MG/KG	

E. Does the waste exhibit or contain the following:

☐ Yes ☑ No Oxidizer		☑ Yes ☐ No React. Sulfides	32 ppm
☐ Yes ☑ No Explosive		☐ Yes ☑ No React. Cyanides	____ ppm
☐ Yes ☑ No Organic Peroxide		☐ Yes ☑ No Water/Air (Pyrophoric) React.	
☐ Yes ☑ No Shock Sensitive		☐ Yes ☑ No Thermally Unstable	
☐ Yes ☑ No Tires		☐ Yes ☑ No TSCA Regulated PCB Waste	
☐ Yes ☑ No Pyrophoric		☐ Yes ☑ No Regulated Medical/Infectious Waste	
☐ Yes ☑ No Radioactive**		☐ Yes ☑ No Compressed Gasses	
☐ Yes ☑ No Exempt RAD**		**Additional Radiological info is provided in USEI's WAC Addendum	

☐ Yes ☑ No Halogenated Organic Compounds? (per 40 CFR 268, Appendix III)

F. PHYSICAL CHARACTERISTICS

pH Range: 4 to 10
1. Flash Point: >140 °F (if <140°F) 2. Typical pH: ____ pH Range: ☐ ≤2 ☑ >2, <12.50 ☐ ≥12.5
☑ Yes ☐ No Possibility of incidental liquids from transportation?
☑ Yes ☐ No Does waste pass the EPA specified paint filter test? *(Pass is a solid)*

G. GENERATOR'S CERTIFICATION:

☐ Yes ☑ No **I certify this material may be disposed of without further treatment.**

Certification Statement: I certify under penalty of law that I am familiar with this waste stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that all known or suspected hazards have been disclosed. Furthermore, I certify that this form was completed in accordance with the instructions provided.

Print Name: Casey Wills
Signature: Casey Wills (agent for NORCO) Title: Proj Mgr Date: 8/12/11

Facility use only
First review ____ Second review ____ Final review: ____
Date approved: ____ Date Denied: ____

US Ecology Texas

ATTACHMENT 4
BENZENE WASTE OPERATIONS 40 CFR SUBPART FF (§§61.340 to 61.358)

GENERATOR NAME: National Oil Recovery Corp. **EPA ID #:** TXD086278058

WASTE NAME: Crude Oil Tank Bottoms

1. **Facility Producing Waste:**
   - ☑ Petroleum Refinery (SIC 2911)
   - ☐ Chemical Mfg. (SIC 2800 thru 2899)
   - ☐ Coke By-Product Recovery Plant (SIC 3312)
   - ☐ TSDF handling benzene-containing hazardous waste from one of the above facilities
   - ☐ None of the above - no need to continue

2. **Is the waste a RCRA hazardous waste per 40 CFR 261?** ☑ Yes ☐ No
   (If yes, complete questions 3-6 [1])

3. **What is the facility's Total Annual Benzene quantity from facility waste?**

   ☑ <1 Megagram (<2,204 lbs.) ☐ >1 Mg <10 ☐ >10 Mg

4. **The flow-weighted annual average benzene content of this waste is:** 10 **ppmw** [2]
   The estimated range is: 0 **to** 20 **ppmw.**

   Or: Waste is remediation material or process unit turnaround waste and per generator knowledge or test data benzene concentration is: _____ **ppm.** [3]
   The estimated range is: _____ **to** _____ **ppm.**

5. **What is the water content percentage of the waste by weight?** 10 **%**

6. **Is the waste subject to the requirements for benzene waste operations under 40CFR, Subpart FF?** ☑ Yes ☐ No
   (Controls required at off site disposal facility)

7. **Optional questions / comments:** _____

   Facility is operating under a waiver of compliance under 40CFR §61.10? _____

   Is the waste remediation exempt? _____

   Other situation or comments: _____

   _____

   Has the waste been treated prior to shipment?

   ☐ No treatment ☐ Yes, >99% removal of benzene ☐ Yes, <10 ppmw benzene

I certify that the information concerning the waste offered for disposal is true and correct.

Signature: Casey Wills (Agent for NORCO) **Generator Name:** National Oil Recovery Corp.

Printed Name: Casey Wills **Date:** 8/13/11

1. Only hazardous waste is subject. 40 CFR §61.340 (b)
2. 40 CFR §61.355(c)(2) or §61.355(c)(3)
3. 40 CFR §61.355(c)(3)

US Ecology Land Disposal Restriction Form

GENERATOR: National Oil Recovery Corp. EPA I.D. NUMBER: TXD086278058

WASTE STREAM or PROFILE NUMBER: 09-007- MANIFEST DOC. NO. _____ LINE NO. _____

WASTE IS A: ☐ WASTEWATER ☑ NON-WASTEWATER ☐ DEBRIS

NOTIFICATION FREQUENCY: ☐ ONE TIME ☑ REQUIRED WITH EACH SHIPMENT

EPA WASTE CODES (from 40 CFR 268.40): K169 _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

UNDERLYING HAZARDOUS CONSTITUENTS (from 40 CFR 268.48): None

A. ☐ **Restricted Waste Meets Treatment Standards (40 CFR 268.7(a) (3))**

The restricted waste identified above meets the treatment standards in 40 CFR 268.40 or **Alternative LDR treatment standards for contaminated soil 40CFR268.49** and can be landfill disposed without further treatment. I have attached all supporting analytical data, where available.

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

B. ☐ **Restricted Waste Treated To Treatment Standards (40 CFR 268.7(b) (l) & 268.7 (b) (2))**

The treatment residue, or extract of such residue, or the restricted waste identified above has been tested to assure that the treatment residues or extract meet all applicable treatment standards in 40 CFR 268.40 and/or performance standards in 40 CFR 268.45. I have attached all supporting analytical data, where available.

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

C. ☐ **Restricted Waste With Technology Based Treatment Standards (40 CFR 268.7(b) (4))**

I certify under penalty of law that I personally have examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information. I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40, without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

D. ☐ **Restricted Waste Decharacterized But Requires Treatment For UHC (40 CFR 268.9)**

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains Underlying Hazardous Constituents (UHC) that require further treatment to meet the universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

E. ☑ **Restricted Waste Subject To Treatment (40 CFR 268.7(a) (2))**

The restricted waste identified above must be treated to the applicable treatment standards in 40 CFR 268.40, or treated to comply with applicable prohibitions set forth in Part 268.32 or RCRA Section 3004(d). I have attached all supporting analytical data, where available.

F. ☐ **Hazardous Debris Subject To Treatment (40 CFR 268.45)**

This hazardous debris identified above must be treated to the alternative treatment standards in 40 CFR 268.45.

G. ☐ **Restricted Waste Subject To A Variance or Extension (40 CFR 268.7(a) (4))**

This restricted waste identified above is subject to a case by case exemption under 40 CFR 268.5, an exemption under 40 CFR 268.6 or a nationwide capacity variance under Subpart C of 40 CFR 268, and is not prohibited from land disposal. LDR prohibitions become effective on _____ (date) for this restricted waste. The corresponding treatment standard(s) are promulgated in 40 CFR 268.40. I have attached all supporting analytical data, where available.

H. ☐ **Restricted Waste Managed In A "Lab Pack" (40 CFR 268.7(a) (9))**

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only waste that have been excluded under appendix IV to 40 CFR Part 268 and that this lab pack may be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

I certify and warrant that the information that appears on this form, and appended documents, is true and correct. I have correctly indicated how my waste is to be managed in accordance with 40 CFR 268. My certification is based on personal examination of the information submitted, or is based on my inquiries of those individuals responsible for obtaining the information.

Authorized Signature Casey Wills (Agent for NOREC) **Title** Proj Mgr **Date** 8/12/11

UHC list from 40 CFR Part 268.48 available upon request

THERMAL SUPPLEMENT FORM

USEcologyTexas

US Ecology Texas
Phone (361) 387-3518
Fax (361) 387-0794

Waste Name: CRUDE OIL TANK BOTTOMS
Generator : National Oil Recovery Corp.

Physical Composition of Waste

WASTE PROPERTIES (wet weight basis)			PRIMARY WASTE COMPONENTS	TYPICAL %
			Water	10
PHYSICAL STATE:	Btu/Lb	% of ASH	Solids	80
☑ Solid ☐ Liquid ☐ Single Phased ☐ Multi Phased			Organics / TPH	10

OTHER WASTE CONSTITUENTS (ppm)					
Chlorine	0	☐ Yes	☑ No	Non-Friable Debris Material > 2-inch size	_____ % (vol)
Fluorine	0	☐ Yes	☑ No	If Catalyst, is material self heating as shipped?	
Bromine	0	☐ Yes	☑ No	Bitumen / Asphalt / Tar > 1% (wt.)	_____ % (wt.)
Sulfides (Total)	32	☐ Yes	☑ No	Has the material been centrifuged?	
Sulfur		☐ Yes	☑ No	Fuel Oxygenates ☐ MTBE ☐ Ethanol ☐ Other	_____ ppm (wt.)
Chlorinated aliphatic hydrocarbons	0	☐ Yes	☑ No	Does the waste contain surfactant?	

1. Is this oil bearing waste from Petroleum Refining, Production or Transportation practices? ☑ Yes ☐ No
Reference: 40 CFR 261.6 (a) (3) (iv) C, TCEQ 335.24, 40 CFR 112.2

Based on analytical data or generator knowledge, I certify that this information is correct to the best of my knowledge.

Name: Casey Wills (please print) Signature: Casey Wills (Agent for NORCO) Date: 8/12/11

Eff: 07-26-10

SECTION D:
MATERIAL COMPOSITION (CONTINUED)

Generator NATIONAL OIL RECOVERY CORP.
WasteDescription CRUDE OIL TANK BOTTOMS

Constituent	TypicalValue	Unit	Range
CHRYSENE	25	MG/KG	0-40
FLUORENE	22	MG/KG	0-30
NAPHTHALENE	50	MG/KG	0-300
PHENANTHRENE	40	MG/KG	0-200
PYRENE	25	MG/KG	0-30

Signature Casey Wills (Agent for NORCO)

PrintedName: Casey Wills

Title: Pros Mgr Date: 8/13/11